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EXAMINER	
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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte CARL G. DEMARCKEN and
GREGORY R. GALPERIN

Appeal 2010-000280
Application 10/098,580
Technology Center 3600

Before HUBERT C. LORIN, ANTON W. FETTING, and JOSEPH A. FISCHETTI, *Administrative Patent Judges.*

FETTING, *Administrative Patent Judge.*

DECISION ON APPEAL[1]

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[1] The two-month time period for filing an appeal or commencing a civil action, as recited in 37 C.F.R. § 1.304, or for filing a request for rehearing, as recited in 37 C.F.R. § 41.52, begins to run from the "MAIL DATE" (paper delivery mode) or the "NOTIFICATION DATE" (electronic delivery mode) shown on the PTOL-90A cover letter attached to this decision.

STATEMENT OF THE CASE[2]

Carl G. DeMarcken and Gregory R. Galperin (Appellants) seek review under 35 U.S.C. § 134 (2002) of a final rejection of claims 28-48 and 56-82, the only claims pending in the application on appeal. Oral arguments were presented on January 17, 2011. We have jurisdiction over the appeal pursuant to 35 U.S.C. § 6(b) (2002).

The Appellants invented a way of determining airline seat availability (Specification 1:4-6).

An understanding of the invention can be derived from a reading of exemplary claim 28, which is reproduced below [bracketed matter and some paragraphing added].

> 28. A method executed in a travel planning system for providing a predicted answer in response to a seat availability query from a user, the method comprising:
>
> [1] retrieving a stored query
>
> from a cache that stores
>
> seat availability queries and
>
> answers to seat availability queries

[2] Our decision will make reference to the Appellants' Appeal Brief ("App. Br.," filed March 16, 2009) and Reply Brief ("Reply Br.," filed July 21, 2009), and the Examiner's Answer ("Ans.," mailed May 21, 2009).

stored from previously completed seat availability queries

sent to revenue management systems;

[2] determining whether at least some fields in the stored seat availability query either

match or

are substantially close in characteristics

to corresponding fields in the user's seat availability query;

[3] retrieving an answer

corresponding to the stored query

matching the seat availability query from the cache;

[4] determining whether the retrieved answer is not stale; and

[5] if the retrieved answer is not stale:

returning the retrieved answer as the predicted answer to the user's seat availability query.

The Examiner relies upon the following prior art:

Bailis	US 5,999,946	Dec. 7, 1999

Claims 28-48 and 56-82 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Bailis.

ISSUES

The issue of obviousness turns on whether it was predictable to rely on a cache of prior query answers to answer subsequent queries, i.e. whether one of ordinary skill would have known to store answers to queries that might recur.

FACTS PERTINENT TO THE ISSUES

The following enumerated Findings of Fact (FF) are believed to be supported by a preponderance of the evidence.

Facts Related to the Prior Art - Bailis

01. Bailis is directed to the use of standard database management software in the context of a complex electronic system and the use of a commercial database management system in a telecommunication switch. Bailis 1:4-8.

02. Bailis describes the then existing practice of providing efficiency to the operation of a database system which can be accessed by multiple clients, which is to cache similar results. In other words, if two clients simultaneously or nearly so request similar searches of the database, only one search is performed and the results are provided to both clients. Bailis 2:23-28.

03. In Bailis, the query results may be saved as long as they are considered valid. The validity of the cached data may be determined by the amount of time that has passed since the original query results were obtained. Alternatively, the validity may be determined by the absence of data updates. For as long as the data is valid, Bailis supplies subsequent, identical queries with the data from cache instead of re-executing the search of the database that originally produced the cached results. Bailis 4:49 – 5:3.

ANALYSIS

There are two sets of claims directed to methods and computer media. As the steps performed are the same in each set of claims we will focus our analysis on the method claims, recognizing that the computer media claims stand or fall correspondingly.

We are unpersuaded by the Appellants' argument (Appeal Br. 8-9) that Bailis fails to describe a predicted answer to a query. The Appellants contend there is a distinction between a retrieved answer and a predicted answer and that the cache in the claim is a predictor of what would be retrieved. Reply Br. 2-3. We agree with the premise that an answer to be retrieved is not a predicted answer, but we find that an answer that has been placed in memory cache to serve as an answer to a subsequent query is a predicted answer to that subsequent query. The claim does not limit or specify the manner of making such a prediction, so caching an answer is within the scope of providing a predicted answer.

We are also unpersuaded by the Appellants' argument that caching answers does not imply similar caching of the queries that resulted in those answers. Appeal Br. 9-12. Reply Br. 7. This argument ignores the fundamental fact of data retrieval, which is there must be some index or other manner by which the data retrieved is addressed. Since Bailis retrieves its cached answers when a subsequent query matches the original query, the original query must necessarily have been cached as well, both to serve as data to base the match on, and to index the cached answer to that query.

We are also unpersuaded that claim 28 requires determining whether some fields are approximate. Appeal Br. 13-14. Reply Br. 8-9. Claim 28

recites "determining whether at least some fields in the stored seat availability query either match or are substantially close in characteristics to corresponding fields in the user's seat availability query." Thus the limitation clearly requires determining if some fields meet either condition. The limitation does not require making a determination as to each condition separately. The claim does not specify the manner or technique such determination is performed. The Examiner found that Bailis determines whether some fields match the corresponding query. This is within the scope of the limitation at issue.

The arguments in support of claims 29-32 are essentially the same as those in support of claim 28. We are unpersuaded that Bailis fails to describe sending an actual query if the results are stale as in claims 34 and 35. Appeal Br. 16-17. For as long as the data is valid, Bailis supplies subsequent, identical queries with the data from cache instead of re-executing the search of the database that originally produced the cached results. FF 03. Thus, when the results are no longer valid, i.e. stale, Bailis executes a query.

As Bailis does not describe making queries based on approximate matches, we are persuaded by the Appellants' arguments as to claim 33. Also, as Bailis does not describe determining a threshold time based on query factors or returning a confidence factor with query results, we are persuaded that Bailis fails to describe claims 36 and 37, and claims 38-43 depending from claim 37. The Examiner is incorrect in finding that these data are non-functional descriptive material because they are used, i.e. they function, to determine whether data is stale and thus a new query is performed.

CONCLUSIONS OF LAW

Rejecting claims 28-32, 34, and 35, and claims 56-59, 61, and 62 under 35 U.S.C. § 103(a) as unpatentable over Bailis is proper.

Rejecting claims 33 and 36-48, and claims 60 and 63-82 under 35 U.S.C. § 103(a) as unpatentable over Bailis is improper.

DECISION

To summarize, our decision is as follows.

- The rejection of claims 28-32, 34, and 35, and claims 56-59, 61, and 62 under 35 U.S.C. § 103(a) as unpatentable over Bailis is sustained.
- The rejection of claims 33 and 36-48, and claims 60 and 63-82 under 35 U.S.C. § 103(a) as unpatentable over Bailis is not sustained.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a). *See* 37 C.F.R. § 1.136(a)(1)(iv) (2007).

AFFIRMED-IN-PART

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